Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Carriage of the Transmissions	)	
of Digital Television Broadcast Stations	)	CS Docket No. 98-120
	)	
Amendments to Part 76	)	
of the Commission's Rules	)	
	)	

REPLY COMMENTS OF THE CONSUMERS ELECTRONICS MANUFACTURERS ASSOCIATION

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EXECUTIVE SUMMARY

Last month digital television broadcasts were initiated successfully in a number of major markets. The initial services that the technology enables are now in the marketplace for consumer judgment and choice, provided that the DTV broadcast signals reach consumers in an unimpaired state.

In evaluating the arguments made in this proceeding, the public interest in consumers continuing to have access to a variety of competing broadcast signals and to be able to use the full capabilities of their electronic equipment must be given substantial weight. Consumers will greatly benefit from a rapid and smooth rollout of digital television if the digital broadcast signals are as available to consumers in the future as their analog counterparts have been in the past.

Arguments and statements in this proceeding and elsewhere that the new digital receivers "won't work with cable" or "have trouble receiving over-the-air signals" simply are false. In the exact same manner as NTSC receivers work with cable when an NTSC signal is delivered to the receiver, so too digital receivers work with ATSC signals. The recent digital carriage agreement between CBS and Time Warner cable is a vivid example that compatibility between first generation television sets and cable-delivered programming is in the hands of the cable operators.

Over-the-air reception tests using early prototype and beta receivers have demonstrated the reception capabilities of the new DTV receivers. But even more fundamentally, manufacturers stand behind their equipment and are constantly improving its capabilities.

Manufacturers are aggressively reviewing all experiences with first generation sets and plan to incorporate any improvements feasible. An on-going technical improvement plan is evidence of a fiercely competitive marketplace and will result in the latest technological developments being incorporated into consumer equipment quickly.

Commenters generally agree, either implicitly or explicitly, that cable carriage is an essential element to rapid public adoption of digital over-the-air television for a number of reasons, including that cable carriage would lessen consumer confusion and speed the transition to digital. In its comments, CEMA noted the statutory requirements and public interest benefits of digital must carry requirements, and also the substantial new capacity that cable systems are deploying around the country. Adopting a temporary transitional scheme that is flexible and that recognizes the new cable capacity would ensure that consumers do not have current networks deleted yet have access to the new digital signals. Therefore CEMA would endorse a plan that ensures continued consumer access to the current array of programming and access to the new digital broadcast signals. We view a carefully-crafted cable capacity-based requirement as equitable for broadcasters as well as cable operators, and a "win/win" situation for consumers.

Under all circumstances, digital broadcast signals retransmitted on cable systems must be delivered to consumers without degradation or deletions (except for ancillary and supplementary services within the scope of the FCC's fees authority). It would be fundamentally unfair to American consumers to permit cable operators to strip broadcast digital signals so that the signals have less than their original picture resolution or audio quality, or lack user data or associated

PSIP as defined by ATSC standard A/65 information. In addition, each channel which contains cable-sourced non-scrambled material should also follow the ATSC A/65 standard. Such data, if left intact as broadcast or supplied in cable-sourced programming, works with the consumers' equipment to provide services such as emergency broadcast alerts, closed captions for the deaf, electronic program guides, and automatic disablement of programs not recommended for children (v-chip). There would be no public policy benefit to permitting cable systems unilaterally to disable equipment functionalities for which consumers pay when they purchase their equipment and the data for which are included in the unaltered free, over-the-air broadcast signal.

Keeping consumers foremost in mind, CEMA concludes that the Commission has within its capabilities the authority and ability to adopt a reasonable regulatory scheme that fairly considers cable capacity and the intent of Congress when it enacted the statutory must carry provisions. With the proper incentives, the public interest in furthering the digital transition will be realized.

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The Consumer Electronics Manufacturers Association ("CEMA") hereby submits this reply to comments filed in response to the Commission's Notice of Proposed Rule Making ("Notice") in the above-captioned proceeding, which addresses cable carriage of broadcasters' digital television signals.[1/]

I. INTRODUCTION

In evaluating the arguments made in this proceeding, the public interest in consumers continuing to have access to a variety of competing broadcast signals and to be able to use the full

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[1/] *Notice of Proposed Rule Making* in CS docket No. 98-120, 13 FCC Rcd 15092 (1998).

capabilities of their electronic equipment must be given substantial weight. Consumers will benefit greatly from a rapid and smooth rollout of digital television broadcast service if the digital broadcast signals are as available to consumers in the future as their analog counterparts have been in the past.

The Commission plays a key role in facilitating and enabling DTV broadcasts because, unlike other media, delivery of these services is through over-the-air signals using the federally-regulated airwaves. It is therefore essential both for affected industries and for consumers that the Commission provide the needed regulatory certainty and incentives by prohibiting bottlenecks and ensuring that the new digital signals, as well as analog signals, are readily accessible to consumers. Appropriate action now will promote a smooth and rapid transition from analog to digital broadcasting and allow these new services to be introduced to consumers in the marketplace. These consumer benefits are in addition to those that will accrue to the public through attainment of the Commission's spectrum management objectives of fostering use of more spectrum-efficient digital technology and recovering spectrum for new and additional services.

II. STATEMENT OF INTEREST

CEMA, a sector of the Electronic Industries Alliance (EIA), is the principal U.S. trade association representing the consumer electronics industry. CEMA members design, manufacture, distribute and sell a wide variety of consumer electronics products, including digital and analog television receivers, video cassette recorders ("VCRs"), digital versatile disk ("DVD")

players, direct broadcast satellite ("DBS") equipment, personal computers, and a wide variety of other devices that connect and enhance these products.

III. THE PERFORMANCE OF DTV RECEIVERS WILL MEET AND EXCEED CONSUMERS' HIGH EXPECTATIONS

A. Digital Television Receivers Will Decode All ATSC Formats, Whether Delivered Over-the-Air or by Cable

As discussed in CEMA's comments in this proceeding, the new digital television receivers are capable of decoding and properly displaying any of the ATSC digital formats, no matter how delivered to the receiver. There are multiple methods for cable to deliver a proper signal to the consumer's TV set, including the retransmission and passing through directly to a receiver's input connector the 8-VSB signal as broadcast; converting the 8-VSB broadcast signal to a different standard (such as 256-QAM or 16-VSB) and remodulating it back to 8-VSB for delivery to the set; or connecting a set-top box to the television receiver using the component video interface, National Renewable Security Standard (NRSS) interface, or digital IEEE-1394 interface.

For example, on November 12, CEMA was pleased to announce that standards for the DTV 1394 digital interface standard had been approved and designated the EIA-775 standard[2/]. The IEEE-1394 digital interface also supports connections among a variety of other digital devices, including digital versatile disc (DVD) players, digital VHS players, Dolby Digital surround sound receivers, and digital converter boxes. While there remain encryption issues that

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[2/] *See* CEMA Officially Approves DTV 1394 Interface Specification (press release dated November 12, 1998).

relate to securing the use of copyrighted material sent through the interfaces, free, over-the-air broadcasts are not encrypted and therefore the delivery of broadcast signals appears to be unaffected by the copy protection issue. By contrast, the component video interface provides full resolution by splitting the signal onto three wires, thereby reducing the bandwidth required for each.

We note that uninformed information has been entered in the record, and respond briefly to assertions that the IEEE-1394 interface lacks the bandwidth necessary to carry the 1080-I ATSC-compliant signals.[3/] This assertion is incorrect. Both the broadcasters' 19.4 Mbps ATSC signal and the 38.8 Mbps cable 256-QAM and 16-VSB signals can be transported through all these interfaces standardized by CEMA (including 1394) with full resolution and functionality. The signals being carried through the IEEE-1394 connection remain compressed and utilize the MPEG decoder that resides in the television receiver or other display device.

B. Cable Transmission Standards Are Necessary to Ensure Compatibility With Digital Receivers

Encryption and "firewire" issues do not arise, however, when decoders that work with both over-the air broadcast and with cable are within the same television receiver. Promoting the availability of "cable-ready" digital receivers is the most effective method to provide television receivers that will work with both broadcasts and cable.

[3/] Microsoft Comments at 12.

As noted in CEMA's comments in this proceeding, the Commission asked CEMA and the National Cable Television Association ("NCTA") to form an advisory group representing both industries for the purpose of jointly considering compatibility issues. Last June, as part of that process, a proposed "cable ready" digital standard was referred to NCTA. Only recently has standards activity begun in the NCTA/CEMA Joint Engineering Committee ("JEC") to define the receivers and training standards required for digital cable-ready operation.

CEMA prefers voluntary industry cooperation, but the lack of cable transmission standards illustrates that resolving issues necessary to reach agreement on a voluntary industry standard requires the good faith cooperative efforts of all the parties. Accordingly, CEMA is forced to renew its request that if the voluntary cooperative process continues to stall, the Commission must reopen its compatibility proceeding to consider the cable standards necessary to ensure consumers that cable transmissions will work with cable-ready television receivers and other consumer electronics equipment. Consumers are deprived of assurance that their digital television sets will work directly with cable, including all the functionalities such as program guides and navigation information, until adequate standards are agreed to or otherwise established.[4/]

[4/] *See* Sections 624a (consumer electronics equipment compatibility with cable) and 629 (competitive availability of navigation devices) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 544a, 549.

C. Government-Mandated Consumer Equipment Standards Would be Counterproductive

Sinclair, in its comments, argues that over-the-air reception issues merit the Commission's adoption of digital television receiver standards "to ensure that consumers can reliably receive over-the-air DTV service."[5/] Sinclair specifically argues that to ensure adequate over-the-air reception, the Commission should adopt a standard to govern receiver sensitivity levels and should require that all receivers contain an A/B switch to enable selection from among multiple video sources.[6/]

Digital broadcasting commenced earlier this month in selected markets, and digital receivers are just beginning to be widely available in those markets. In addition, multiple channels of nationwide broadcasting will begin in 1999. Consumers and the Commission can be assured that the competitive marketplace will require manufacturers to aggressively develop and implement enhancements to improve digital reception as technology develops.

Many of the first set designs being introduced into the marketplace this autumn have been tested and evaluated using the digital signals broadcast by WHD-TV, the model DTV station that CEMA co-founded with broadcasters in Washington, D.C., to test studio and consumer equipment. With regard to early digital test results, CEMA notes that the power of the test transmitter and/or the height of the transmitting antenna of the stations used for pre-broadcast

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[5/] Sinclair Comments at 3.

[6/] Sinclair also urges performance standards for antennas and digital set-top boxes. *Id.* at 8.

tests were less than those calculated by the FCC to provide digital ATSC service equivalent to that of analog NTSC. These differences very well could account for the differences in ATSC and NTSC reception, both with regard to reception near the Grade B boundary and in the close-in multi-path environment. Nevertheless, equipment manufacturers are carefully monitoring consumers' experiences as full power digital stations go on the air and new digital television receivers go into use around the country. The competitive marketplace will ensure that any deficiency in any manufacturer's receivers will be corrected quickly.

On multiple occasions the Commission consistently and correctly has held that competitive market forces will ensure that DTV receivers perform adequately, and that television manufacturers are in the best position to ensure that their products meet and exceed consumer expectations. The specific issue of receiver sensitivity was addressed, decided, and disposed of in MM Docket No. 87-268, the Commission's generic advanced television proceeding. In its reconsideration order released on February 23, 1998, the Commission correctly affirmed its decision to rely upon marketplace forces rather than to adopt receiver standards.[7/] For the reasons discussed above, this was a correct decision. The record is devoid of any reason why the Commission's determination should be changed now.

[7/] *Sixth Report and Order*, MM Docket No. 87-268, 12 FCC Rcd. 14588 (1997); *Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order*, 13 FCC Rcd 7418 at ¶¶ 168-171 (1998); *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, FCC 98-315 (released Dec. 18, 1998).

Similarly, the inclusion of A/B switches is a decision best left to the marketplace. Many television receivers in fact already are equipped with multiple inputs of various types that are selected by remote control. There will be numerous variations in the sizes and features of digital television sets, and many will include A/B switches. But consumers with no need to switch among multiple video sources should not be burdened with the extra cost of having a mandatory A/B switch built into each and every television set. Indeed, a substantial number of television sets are connected to a VCR or set-top box which itself may provide the switching capability. In addition, inexpensive manual A/B switches are readily available at numerous stores, including Radio Shack. In sum, it is the marketplace, not government, that should determine what functions and features are included in television receivers. We urge the Commission to refrain from imposing new requirements that would impose costs on all consumers for features that will be of no use to some. While voluntarily provided A/B switches may assist some viewers in receiving DTV broadcasts, they are no substitute for cable carriage requirements.

IV. FLEXIBLE RULES FOR THE DTV TRANSITION PERIOD SHOULD BE BASED ON CABLE'S NEWLY EXPANDED CAPACITY

In its comments, the Association of Maximum Service Telecasters (MSTV) proposes that the Commission consider cable capacity and carriage timing when crafting a must carry rule for the transition.[8/] MSTV states that (1) most major multiple service operators (MSOs) are expanding the capacity of their systems rapidly and digitizing at least a portion of the cable; and

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[8/] Association for Maximum Service Television, Inc. (MSTV) Comments at 51-56.

(2) broadcast digital signals will be rolled out sequentially, with the four major signals in the top thirty markets leading the transition throughout 1999 pursuant to the Commission's phased roll-out schedule. This is a grand total of 120 stations required nationwide and no more than four required in any one market, hardly an overwhelming burden for most cable systems that also tend to have the most capacity in the same top 30 markets in which most of the digital broadcasters are rolling out service.

CEMA therefore suggests that it would be useful for the Commission to follow the principle articulated by MSTV: craft a DTV broadcast must carry rule that is fair and equitable to consumers, manufacturers, cable, and broadcasters. For consumers, it is important both to provide delivery of the new digital broadcast signals and to minimize dislocation of current programming. Cable's expansion capacity can be used for this purpose. For manufacturers as well as for consumers it is essential that *all* the capabilities of consumer television equipment can be utilized as intended. This would be accomplished by requiring cable to pass all aspects of the broadcast signal, whether or not specific signals are required to be carried. Under this scenario, cable operators would benefit to the extent only unused, digital, or newly-expanded capacity would have to be used for the must carry channels. And broadcasters could be assured that their digital signals have a right of carriage during the transition with only ancillary and supplementary information subject to deletion by cable operators.[9/]

[9/] Pursuant to Section 336(b)(3) of the Communications Act of 1934, as amended, 47 U.S.C. § 336(b)(3), ancillary and supplementary services are not subject to the "must carry" provisions.

While the MSTV proposal is keyed to modifications to cable systems made as of July 10, 1998, there is no magic to that particular date (which was chosen because the Commission's Notice in this proceeding was adopted that day). Indeed it may be fairer to address carriage obligations based on whether a cable system has digital capabilities or on total useable bandwidth than whether certain modifications were made to specific cable systems before or after a date certain. In particular, we note that the July 10 date was not the first time digital must carry obligations were raised by the Commission. The Commission has sought comment on cable must carry obligations several times over the years. The Supreme Court's affirmance of must carry, however, occurred on the eve of the Commission's adoption of its Fifth Report and Order. For that reason, the Commission decided to update its record before ruling.[10/] An expeditious transition would be most effectively promoted by tying a cable system's digital carriage obligations to that system's capacity, rather than to an arbitrary date.

V. CONSUMERS MUST NOT BE DENIED THE FUNCTIONALITIES AND FULL RESOLUTION OF THEIR EQUIPMENT THROUGH AD HOC DELETIONS FROM DIGITAL BROADCAST SIGNALS BY CABLE OPERATORS

Today's television receivers, whether analog or digital, are designed and built with a variety of functions. The proper operation of these functions depends upon receiving information carried by the signal. For example, operation of the V-chip to block programs of certain specified ratings will depend upon information embedded in the broadcast signal. This is true without

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[10/] *See Fifth Report and Order*, MM Docket No. 87-268, 12 FCC Rcd 12809 at paras. 105-106 (1997).

regard to whether the signal is analog or digital. The same is true with information related to severe weather alerts and other emergency information; and with closed captioning for the hearing impaired. The proper operation of these functionalities depends totally upon receiving the data stream carrying essential information.

Numerous commenters urge the Commission to ensure that consumers receive the digital signals without degradation, which includes without deletions of data streams as well as alteration of the resolution of the video signal.[11/] In addition, cable deletion of data streams will cause significant consumer confusion. When a consumer purchases a digital television receiver after having seen new data features and services demonstrated in the showroom, consumers will not understand if they take the set home, connect it to the cable system and are unable to access some or all of the other associated features which were demonstrated in the retail store. Indeed, the consumer likely will have a very difficult time in trying to determine whether the problem is a defect in the receiver or whether there is some other reason for the inability to use all the set's additional features. The public interest and the success of the DTV transition require that cable systems not deny consumers the full functionality of their receivers. The elimination of this

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[11/] *See, e.g.*, ALTV Comments at 62; Barry Telecommunications at 5; Broadcast Group at 19; Capitol Broadcasting at 4; Chris-Craft/United Group at 4; Cordillera at 4; Corporation for General Trade at 13; Entravision at 10; Golden Orange Broadcasting at 6; Granite Broadcasting at 9; KSLS/KHLS at 2; Lee Enterprises at 6; Marantha at 6; Morgan Murphy and Cosmos Broadcasting at 10; MSTV at 28; NAB at 29; Pegasus Communications at 6; Pikes Peak broadcasting at 11; Public Broadcasters at 44; Retlaw Enterprises at 4; Shockley Communications at 4; Sinclair at Note 5; Station representatives Association at 8; and UPN Affiliates at 4.

information from signals thus would render useless some of the very functions that Congress required be designed into receivers and the broadcasters to include in their signal.

Similarly, broadcaster information for electronic program guide (EPG) systems is displayed when the correct chip is built into a television set or VCR. EPGs, analogous to "portals" on websites, organize information in such a way as to pre-determine the likelihood that a user will see it. Some EPGs included in DTV receivers will be competing with EPGs owned and operated by cable systems. Where consumers have purchased equipment with EPG capability and broadcasters have included the EPG information within their signals, cable operators retransmitting the broadcast signals should be prohibited from rendering these consumer equipment functions inoperable by stripping the information from the broadcast signal. To countenance degradation of the broadcast signal in this fashion would sanction a practice that would place the cable operator with its own competitive EPG in a position to delete its competitor's service and restrict the cable system's customers to the single EPG associated with or provided by the cable operator itself.

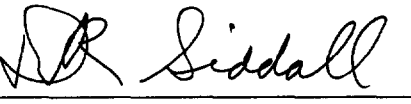
Similarly, there has been a well-publicized debate over formats and resolution. The one thing that is clear from the debate is that there are different opinions on which formats provide a better picture or the best performance. If consumers are to make format decisions in the marketplace, all of the various formats broadcast must be delivered to the consumers in the intended resolution.

VI. CONCLUSION

CEMA believes that the marketplace works when consumers have choices. During this period of transition from analog to digital broadcasting the Commission should exercise its statutory authority to facilitate a rapid transition and to protect consumer welfare.

Respectfully submitted,

CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION



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